Wetlands

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered by shallow water (U.S. Fish and Wildlife Service). Wetlands are defined on the basis of vegetation, hydrology, and soil. Section 404 of the Clean Water Act defines wetlands on the basis of their having a prevalence of hydrophytic vegetation, undrained hydric soils, and certain hydrological indicators.

The material here provides information about the location of potentially affected wetlands in a corridor-level environmental review. Wetlands that have been identified by a jurisdiction in the study area as Category I (or similar rating of the highest value) are classified as high priority wetlands that have high biological and hydrologic value. Any wetland that contains or that is in close proximity to threatened or endangered species is also classified as a high priority wetland. Wetlands not rated as high priority are lower priority wetlands.

DEIS Maps

Geographic information system (GIS) data developed from the National Wetlands Inventory (U.S. Fish and Wildlife Service, 1993) was the primary source of wetlands data. This source was complemented by using local reference materials to identify more recent information. Aerial photographs were also used, though these are generally less useful for identifying wetlands, especially in areas of dense forest cover.

For the Draft Environmental Impact Statement (DEIS) and its accompanying documents (i.e., the "Draft Wetlands Expertise Report"), the geographic information on wetlands was mapped using a GIS. The resulting map is "Existing Wetlands in the Study Area," listed under DEIS Maps. The high-priority wetlands are in a pink coral color; the lower-priority areas are in green.

The other map in the DEIS Expertise report, "Alternative 3 Projects w/Farmlands," contains the same information, with Alternative 3 projects (both highway and transit) overlain onto the wetlands map.

RS/GIS Maps

The map listed under RS/GIS Maps – "Existing Wetlands in the Study Area" – was generated using the GIS data used in the DEIS, as described above, in combination with remotely sensed imagery to classify land uses. The latter involved automated classification of the imagery based on spectral signatures and textures, with field verification and validation. The high priority wetlands are identified in bright red. The medium and low priority wetlands are identified in bright green (which can be seen more easily when the map is magnified). Other land cover and land uses are identified with "muted" colors, as defined in the map legend. The mapping of land uses indicates the types of land-use activities that are found in close proximity to the wetland areas.

The other map listed under RS/GIS Maps, "Alternative 3 Projects w/Wetlands," shows Alternative 3 projects (both highway and transit) overlain onto the wetlands map.